

We claim:

1 1. A surgical probe, comprising:
2 a relatively short shaft defining a distal portion and a proximal
3 portion; and
4 an inflatable therapeutic element associated with the distal portion
5 of the shaft.

1 2. A surgical probe as claimed in claim 1, wherein the relatively short
2 shaft is relatively stiff.

1 3. A surgical probe as claimed in claim 1, wherein the relatively short
2 shaft is malleable.

1 4. A surgical probe as claimed in claim 3, wherein the proximal portion
2 of the relatively short shaft is stiffer than the distal portion of the relatively short
3 shaft.

1 5. A surgical probe as claimed in claim 1, wherein at least a portion of
2 the inflatable therapeutic element comprises micropores.

1 6. A surgical probe as claimed in claim 1, wherein the inflatable
2 therapeutic element includes a distally facing energy transmission region.

1 7. A surgical probe as claimed in claim 6, wherein the energy
2 transmission region is annularly shaped.

1 8. A surgical probe as claimed in claim 7, wherein the energy
2 transmission region surrounds a non-conductive region.

1 9. A surgical probe as claimed in claim 6, wherein the inflatable
2 therapeutic element includes a proximally facing non-conductive region.

1 10. A surgical probe as claimed in claim 1, wherein the inflatable
2 therapeutic element includes an energy transmission region and a non-conductive
3 region and at least one of the energy transmission region and the non-conductive
4 region define a color that visually distinguishes it from the other of the energy
5 transmission region and the non-conductive region.

1 11. A surgical probe as claimed in claim 1, wherein the inflatable
2 therapeutic element is mounted on the distal portion of the shaft.

1 12. A surgical probe as claimed in claim 1, wherein the shaft defines a
2 distal end, the surgical probe further comprising:

3 a needle slidably mounted within the shaft and movable relative to the
4 shaft such that a distal portion of the needle extends outwardly from the distal end
5 of the shaft, the inflatable therapeutic element being mounted on the distal portion
6 of the needle.

1 13. A surgical probe as claimed in claim 12, wherein the needle
2 comprises a plurality of needles and the inflatable therapeutic element comprises a
3 plurality of inflatable therapeutic elements respectively mounted on the plurality of
4 needles.

1 14. A surgical probe as claimed in claim 12, wherein the distal portion of
2 the needle defines a preset curvature.

1 15. A surgical probe system, comprising:

2 a surgical probe including a relatively short shaft defining a distal
3 portion and a proximal portion and an inflatable therapeutic element associated
4 with the distal portion of the shaft; and

5 a fluid source operably connected to the inflatable therapeutic
6 element and adapted to maintain pressure within the inflatable therapeutic
7 element at a predetermined level.

1 16. A surgical probe system as claimed in claim 15, wherein the relatively
2 short shaft is malleable.

1 17. A surgical probe system as claimed in claim 15, wherein at least a
2 portion of the inflatable therapeutic element comprises micropores.

1 18. A surgical probe system as claimed in claim 15, wherein the inflatable
2 therapeutic element includes a distally facing energy transmission region.

1 19. A surgical probe system as claimed in claim 14, wherein the distally
2 facing energy transmission region is annularly shaped.

1 20. A surgical probe system as claimed in claim 19, wherein distally
2 shaped energy transmission region surrounds a non-conductive region.

1 21. A surgical probe system as claimed in claim 19, further comprising a
2 pressure sensor adapted to determine the pressure within the inflatable therapeutic
3 element.

1 22. A surgical probe system as claimed in claim 21, wherein the pressure
2 sensor is associated with the fluid source.

1 23. A surgical probe system as claimed in claim 19, wherein the fluid
2 source comprises a pump.

1 24. A surgical probe system as claimed in claim 19, wherein the fluid
2 source continuously infuses fluid to and ventilates fluid from the inflatable
3 therapeutic element.

1 25. A surgical probe system as claimed in claim 15, wherein the inflatable
2 therapeutic element is mounted on the distal portion of the shaft.

1 26. A surgical probe system as claimed in claim 15, wherein the shaft
2 defines a distal end, the surgical probe further comprising:

3 a needle slidably mounted within the shaft and movable relative to the
4 shaft such that a distal portion of the needle extends outwardly from the distal end
5 of the shaft, the inflatable therapeutic element being mounted on the distal portion
6 of the needle.

1 27. A surgical probe system as claimed in claim 26, wherein the needle
2 comprises a plurality of needles and the inflatable therapeutic element comprises a
3 plurality of inflatable therapeutic elements respectively mounted on the plurality of
4 needles.

1 28. A surgical probe system as claimed in claim 26, wherein the distal
2 portion of the needle defines a preset curvature.

1 29. A method of forming a lesion around a body orifice, comprising the
2 steps of:

3 providing a surgical probe including a relatively short shaft defining
4 a distal portion and a proximal portion and an inflatable therapeutic element
5 associated with the distal portion of the shaft;

6 inflating the inflatable therapeutic element to a predetermined
7 pressure;

8 positioning the inflatable therapeutic element adjacent to the body
9 orifice; and

10 forming a lesion around the body orifice with the inflatable
11 therapeutic element.

1 30. A method as claimed in claim 29, wherein the step of positioning the
2 inflatable therapeutic element comprises positioning the inflatable therapeutic
3 element adjacent to a pulmonary vein.

1 31. A method as claimed in claim 29, wherein the step of forming a lesion
2 around the body orifice comprises transmitting energy from the inflatable
3 therapeutic element to tissue associated with the body orifice.

1 32. A method as claimed in claim 29, wherein the step of forming a lesion
2 around the body orifice comprises heating tissue associated with the body orifice
3 with the inflatable therapeutic element.

1 33. A surgical probe, comprising:
2 a hollow needle; and
3 a therapeutic assembly, located within the hollow needle and
4 movable relative thereto, including a relatively short shaft defining a distal portion
5 and a proximal portion and an inflatable therapeutic element associated with the
6 distal portion of the shaft.

1 34. A method of coagulating tumor tissue, comprising the steps of:
2 inserting an inflatable therapeutic element into the tumor; and
3 coagulating tissue with the inflatable therapeutic element.

1 35. A method as claimed in claim 34, wherein the step of inserting an
2 inflatable therapeutic element into the tumor comprises the steps of inserting the
3 inflatable therapeutic element into the tumor in a deflated state and inflating the
4 inflatable therapeutic element within the tumor.